

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) A liquid crystal ~~Liquid-Crystal~~ film or layer with homeotropic alignment,
wherein said homeotropic alignment is achieved by an aligning layer on a substrate,
and wherein said aligning layer is an -a smooth Al₂O₃ layer
with a surface sufficiently smooth such that liquid crystal films formed thereon can be removed in one piece.
2. (currently amended) A liquid ~~Liquid~~-crystal film or layer according to claim 1 wherein the substrate is a polymeric material.
3. (currently amended) A liquid ~~Liquid~~-crystal film or layer according to claim 2 wherein substrate is a plastic sheet or film.
4. (currently amended) A liquid ~~Liquid~~-crystal film or layer according to claim 1 wherein the substrate prior to its coating with the alignment layer or its precursor is subjected to a corona discharge.
5. (cancelled)
6. (cancelled)
7. (cancelled)
8. (cancelled)
9. (previously presented) A process of fabricating a homeotropically oriented liquid crystal film or layer according to claim 1 which comprises applying an aligning layer as defined in claim 1 on a substrate.
10. (currently amended) An ~~electoptical~~ electrooptical system which contains a liquid crystal film or layer according to claim 1.

11. (previously presented) A liquid crystal layer as in claim 1, wherein said aligning layer is a thin transparent Al₂O₃ coating.

12. (Cancelled)

13. (Cancelled)

14. (Cancelled)

15. (currently amended) An aligning layer for a liquid crystal film or layer which provides homeotropic alignment, said aligning layer comprising an a-smooth Al₂O₃ layer with a surface sufficiently smooth such that liquid crystal films formed thereon can be removed in one piece.

16. (previously presented) An aligning layer as in claim 15 which comprises a thin transparent Al₂O₃ coating.

17. (cancelled)

18. (cancelled)

19. (Cancelled)

20. (currently amended) A liquid crystal Liquid Crystal film or layer with homeotropic alignment

wherein said homeotropic alignment is achieved by an aligning layer on a substrate,

wherein said aligning layer is an aluminum coating or a smooth Al₂O₃ layer, with a surface sufficiently smooth such that liquid crystal films formed thereon can be removed in one piece,

and wherein the substrate is comprised of plastic.

21. (cancelled)

22. (cancelled)

23. (cancelled).

24. (cancelled)

25. (cancelled)

26. (cancelled)

27. (cancelled)

28. (cancelled)

29. (cancelled)

30. (currently amended) A liquid Liquid-crystal film with homeotropic alignment wherein said hemitropic homeotropic alignment is achieved by an aligning layer on a substrate wherein said aligning layer is an a smooth Al₂O₃ layer with a surface sufficiently smooth such that liquid crystal films formed thereon can be removed in one piece.

31. (currently amended) A liquid Liquid-crystal film according to claim 30 wherein the substrate is a polymeric material.

32. (currently amended) A liquid Liquid-crystal film according to claim 31 wherein the substrate is a plastic sheet or film.

33. (currently amended) A liquid Liquid-crystal film according to claim 30 wherein the substrate prior to its coating with the alignment layer or its precursor is subjected to a corona discharge.

34. (currently amended) A process Process-of fabricating a homeotropically oriented liquid crystal film according to claim 30 which comprises applying an aligning layer as defined in claim 30 on a substrate.

35. (currently amended) An electrooptical electrooptical system which contains a liquid crystal film according to claim 30.

36. (previously presented)A liquid crystal film as in claim 30, wherein said aligning layer is a thin transparent Al₂O₃ coating.

37. (currently amended) A liquid ~~Liquid~~ crystal film as in claim 30 prepared from a layer comprising one or more polymerizable mesogenic compounds.

38. (currently amended) A liquid ~~Liquid~~ crystal film as in claim 30 prepared from a mixture comprising reactive mesogenic compounds of formula I



wherein

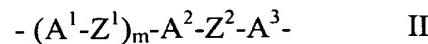
P is a polymerizable group

Sp is a spacer group having 1 to 20 C atoms,

X is a group selected from -O-, -S-, -CO-, -COO-, -OCO-, -OCO-O- or a single bond;

n is 0 or 1,

MG is a mesogenic or mesogeneity supporting group, according to formula II



wherein A¹, A²

and A³ are independently from each other 1,4-phenylene in which, in addition, one or more CH groups may be replaced by N, 1,4-cyclohexylene in which, in addition, one or two non-adjacent CH₂ groups may be replaced by O and/or S, 1,4-cyclohexenylene or naphthalene-2,6-diyl, it being possible for all these groups to be unsubstituted, mono- or poly-substituted with halogen, cyano or nitro groups or alkyl, alkoxy or acyl groups having 1 to 7 C atoms wherein one or more H atoms may be substituted by F or Cl,

Z¹ and Z² are each independently -COO-, -OCO-, CH₂CH₂-, -OCH₂-, -CH₂O-, -CH₂=CH-, -C≡C-, -CH=CH-COO-, -CO-CH=CH- or a single bond

and

m is 0, 1 or 2,

and

R is an alkyl radical with up to 25 C atoms which may be unsubstituted, mono- or

polysubstituted by halogen or CN, it being also possible for one or more non-adjacent CH₂ groups to be replaced, in each case independently from one another, by -O-, -S-, -NH-, -N(CH₃)-, -CO-, -COO-, -OCO-, -OCO-O-, -S-CO-, -CO-S- or -C≡C- in such a manner that oxygen atoms are not linked directly to one another, or alternatively R is halogen, cyano or has independently one of the meanings given for P-(Sp-X)_n-.

39. (currently amended) A liquid Liquid crystal film according to claim 30 wherein the surface of the smooth Al₂O₃ layer is smoother than aluminum oxide coatings obtained by evaporation methods or sputtering.

40. (currently amended) A liquid Liquid crystal film or layer according to claim 1 wherein the surface of the smooth Al₂O₃ layer is smoother than aluminum oxide coatings obtained by evaporation methods or sputtering.

41 (new) A liquid crystal film or layer with homeotropic alignment, wherein said homeotropic alignment is achieved by an aligning layer on a polymeric substrate,

and wherein said aligning layer is an Al₂O₃ layer with fewer pores than aluminum oxide layers prepared by evaporation methods or sputtering.

42. (new) A liquid crystal film or layer with homeotropic alignment, wherein said homeotropic alignment is achieved by an aligning layer on a substrate,

and wherein said aligning layer comprises a thin transparent Al₂O₃ layer positioned on a thin PET substrate and is suitable for use as transparent food packaging.